REMARKS

35 U.S.C. § 102(b)/103(a) Rejections

Claims 1 – 5, 11 and 12

The Office Action rejected Claims 1 – 5, 11 and 12 under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under U.S.C. 103(a) as obvious over Loomis *et al.* (US patent 6,316,522) [Loomis '522] or Loomis (US patent 5,854,382) [Loomis '382]. Additionally, the Office Action rejected Claims 1 - 3, 5 and 11 - 12 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sawhney article.

The Office Action states that "both Sawhney and Loomis `382 disclose long polylactic segments (with DP of up to 40 in Sawhney, and up to 50 in Loomis `382) ... [and] disclose crosslinking the polymers and drying (or dehydrating) the crosslinked networks, at least for determination of water uptake as per disclosure of illustrative examples, thus disclosing dry polymeric network that are of substantially identical structure as the claimed networks." Additionally, it states "Loomis `522 discloses procedures of pre-crosslinking and post-crosslinking the polymers prior to formation of hydrogels".

Applicants have amended Independent Claim 1 to more clearly claim the disclosed polymer. Claim 1 is a product by process, which has at least two features not disclosed by the cited references.

The macromonomer is melted before induction of crosslinking in the melted state. This process produces a composition that is not a hydrogel when placed in an aqueous medium, since it lacks the porosity generated when macromers are in solution before induction of crosslinking to form a polymer.

Additionally, the polymer in Claim 1 has "shape memory" due to it being crosslinked when the macromonomer is in a melted state. This produces a composition with a permanent shape that can have a temporary shape, which will return to the permanent shape upon exposure to a stimulus.

Claims 1 – 5, 11 and 12

Loomis '522 fails to disclose crosslinking of a macromonomer in a melted state or the production of a polymer with a "shape memory". Loomis '522 discloses compositions that form hydrogels or xerogels, depending on the environment, when crosslinked. Loomis '522 states "Crosslinking of these polymers can be effected in solution in organic solvents or in solvent-free systems. If crosslinking occurs in a humid environment, a hydrogel will form. If crosslinking occurs in a non-humid environment, a xerogel will form which will form a hydrogel when exposed to a humid environment and the resulting crosslinked materials form hydrogels when exposed to humid environments" (see Abstract).

It should be noted that the disclosed "solvent-free systems" involve copolymer compositions that are naturally liquid and not melted as in Claim 1. Loomis '522 states "When this solvent-free process is employed, the hydrogel is formed upon subsequent exposure of the crosslinked copolymer to an aqueous environment" [col. 10, lines 61 - 63].

The Office Action alleges that "while the reference does not expressly address the shape memory property of the claimed networks, it is reasonably believed that [this] limitation [is] inherently met by the disclosed dried networks".

Applicants disagree with this conclusion and believe the wrong standard for inherency has been used to make the 102(b) rejection. Although "inherent disclosures of a prior art reference may be relied upon in the rejection of claims" [MPEP 2112], "the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic (emphasis in original) [MPEP 2112 IV] (In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). *"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*)

Paragraph [0050] of the present application discloses the process for crosslinking the macromonomers to obtain the permanent shape memory. "Networks are obtained by irradiation of the melt . . . the shape in which the crosslinking occurs corresponds to the permanent shape." Loomis '522 does not disclose crosslinking the macromonomers in a

melted state, and therefore, the Examiner cannot claim the resulting polymers inherently have "shape memory" properties.

Loomis '382 fails to disclose crosslinking of a macromonomer in a melted state or the production of a polymer with a "shape memory". Loomis '382 discloses compositions that form hydrogels in aqueous environments when crosslinked. Loomis '382 states "In the present invention, the composition is crosslinked in an aqueous medium. Furthermore, when crosslinked, the copolymer composition is able to form a hydrogel" (Col. 6, lines 25 – 27).

The Examiner is requested to withdraw Loomis '522 and Loomis '382 as anticipating under 35 U.S.C. 102(b) or, in the alternative, making obvious under U.S.C. 103(a) Claims 1 – 5, 11 and 12. These references do not contain, alone or in combination, each and every feature in Claims 1 – 5, 11 and 12. At least one of which is "a crosslinked ABA triblock dimethacrylate macromonomer produced by a process comprising the steps of: 1) melting the ABA triblock dimethacrylate macromonomer and 2) crosslinking the ABA triblock dimethacrylate macromonomer". In light of the amendments to Claim 1 and the foregoing arguments, the Examiner is respectfully requested to allow Claims 1 – 5, 11 and 12.

Claims 1 - 3, 5 and 11 – 12

Sawhney (1993) fails to disclose crosslinking of a macromonomer in a melted state or the production of a polymer with a "shape memory". Sawhney discloses hydrogel compositions that are either tissue adhering if polymerized in contact with the tissue or tissue non-adhering if polymerized before contact with the tissue (see Abstract). The disclosed macromers are in solution when polymerized (page 583, col. 1, para. 3, lines 1 – 3) and initiators and catalysts are used when crosslinking is induced in water [page 583, col. 1, para 3, lines 3 - 6].

For the reasons stated above, Applicants disagree with the conclusion that the polymers disclosed in Sawhney (1993) are shape memory networks and believe the wrong standard for inherency has been used to make the 102(b) rejection. Sawhney (1993) does not disclose crosslinking the macromonomers in a melted state, and therefore, the Examiner cannot claim the resulting polymers inherently have "shape memory" properties.

The Examiner is requested to withdraw Sawhney (1993) as anticipating under 35 U.S.C. 102(b) or, in the alternative, making obvious under U.S.C. 103(a) Claims 1 – 3, 5, 11 and 12.

This reference does not contain, alone or in combination, each and every feature in Claims 1 – 3, 5, 11 and 12. At least one of which is "a crosslinked ABA triblock dimethacrylate macromonomer produced by a process comprising the steps of: 1) melting the ABA triblock dimethacrylate macromonomer and 2) crosslinking the ABA triblock dimethacrylate macromonomer". In light of the amendments to Claim 1 and the foregoing arguments, the Examiner is respectfully requested to allow Claims 1 – 3, 5, 11 and 12.

New Claims 13 – 18

Claims 13 – 16

The Office Action states Claim 6 would be allowable if written in Independent form. The Examiner is thanked for this suggestion and Applicants have rewritten Claim 6 as an Independent claim to make it allowable. Claims 13 – 16 are dependent from Claim 6 and therefore are also allowable as being dependent from an allowable claim. The Examiner is respectfully requested to allow Claims 6 and 13 - 16.

Claims 17 – 18

Claims 17 – 18 are dependent from Claim 1. In light of the amendments to Claim 1, Applicants believe Claim 1 is now allowable and therefore Claims 17 – 18, being dependent from an allowable claim, are also allowable. The Examiner is respectfully requested to allow Claims 17 - 18.

Conclusion

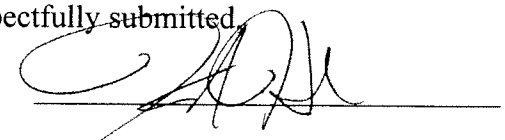
Claims 1 – 6 and 11 – 18 are Pending. Claims 1 – 6 and 11 – 12 are Currently amended. Claims 13 - 18 are New. Claims 7 - 10 are Canceled. No New Matter was entered with these amendments. Applicants respectfully request the entrance of the amendments.

Applicants have endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, arguments in support of the patentability of the pending claim set are presented above. In light of the above remarks, reconsideration and withdrawal of the outstanding rejections are specifically requested and it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

No additional fees are believed due; however, the Commissioner is authorized to charge any fees due in connection with the filing of this response to our Deposit Account No. 50-1349. If a fee is required for an extension of time under 37 C.F.R. § 1.136 that is not accounted for in the enclosed transmittal, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

Date: September 8, 2008

By: 

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